



Antennas

DATA SHEET

65° Wideband Tri-Sector Antenna

SCA-DR3-65F-EEE-H2



- Two foot (0.5 m), six port, tri-sector antenna each sector with uniform horizontal beamwidths covering the extended band from 1710-2690 MHz
- Three individual 65° sectors arranged in a cloverleaf configuration in a single compact radome
- One pair of cross-polarized ports for each sector
- Small size and center mount post make it ideal for mounting on utility, lighting and traffic poles
- Sharp elevation beamwidth aides in network planning
- Simple single housing blends easily into urban environments
- Simplified radio assignments due to all band design
- Only one antenna is needed due to extended band operation
- Exceeds minimum PIM performance requirements

Overview

CCI's extended band 65° Tri-Sector Small Cell antenna provides full PCS, AWS, WCS, 2400 MHz and BRS band coverage. With six high band ports covering 1710-2690 MHz, this two foot (0.5 m) compact antenna provides three sector coverage in a single canister radome. The unique design of the antenna elements provides for extremely uniform horizontal beam widths over the full operating frequency range insuring consistent coverage area for all bands of operation. The Tri-Sector Antenna is an ideal choice for Microcells and Small Cell applications in urban and suburban environments where antenna size and count are restricted. The Tri-Sector antenna can also be externally configured for quasi-omni operation for 360 degree coverage from a single microcell. The antenna includes a center mount post which is well suited for mounting to utility, lighting and traffic poles.

CCI antennas are designed and produced to ISO 9001 certification standards for reliability and quality in our state-of-the-art manufacturing facilities.

Applications

- Microcells and Small Cells in Urban, Suburban and other visually sensitive environments
- Outdoor Distributed Antenna Systems (ODAS), neutral host in venues, campuses and other outdoor coverage applications
- Macro Cell sites in urban environments with restricted visual impact



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SPECIFICATIONS

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Electrical

Ports	6 x Ports which cover the full range from 1710-2690 MHz			
Frequency Range	1850-1990 MHz	1710-1755/2110-2155 MHz	2305-2360 MHz	2500-2690 MHz
Gain	14.0 dBi	13.5 dBi	14.3 dBi	14.4 dBi
Azimuth Beamwidth (-3dB)	66°	67°	64°	63°
Elevation Beamwidth (-3dB)	18.2°	19.9°	17.0°	14.0°
Electrical Downtilt	2°	2°	2°	2°
First upper sidelobes at peak gain	< -18 dB	< -18 dB	< -18 dB	< -18 dB
Front to back ratio @ 180°	> 23 dB	> 24 dB	> 26 dB	> 28 dB
Cross-Polar Port-to-Port Isolation	> 25 dB	> 27 dB	> 27 dB	> 30 dB
Voltage Standing Wave Ratio(VSWR)	< 1.5:1	< 1.5:1	< 1.5:1	< 1.5:1
Passive Intermodulation (2x20W)	≤ -150 dBc	≤ -150 dBc	≤ -150 dBc	≤ -150 dBc
Input Power Continuous Wave (CW)	300 watts	300 watts	300 watts	300 watts
Polarization	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°	Dual Linear 45°
Input Impedance	50 ohms	50 ohms	50 ohms	50 ohms
Lightning Protection	DC Ground	DC Ground	DC Ground	DC Ground

Mechanical

Dimensions (LxD)	20.3 x 9.7 in (516 x 246 mm)
Survival Wind Speed	> 150 mph (> 241 kph)
Front Wind Load	42 lbs (187 N) @ 100 mph (161 kph)
Equivalent Flat Plate Area	1.6 ft ² (0.2 m ²)
Weight *	10.6 lbs (4.8 kg)
Connector (RF)	6 x 7-16 DIN female
Mounting Pole	1 to 2.5 in (25 to 63 mm)
Wall mount Hardware	0.5 in. (13 mm) diameter recommended

* Weight excludes mounting



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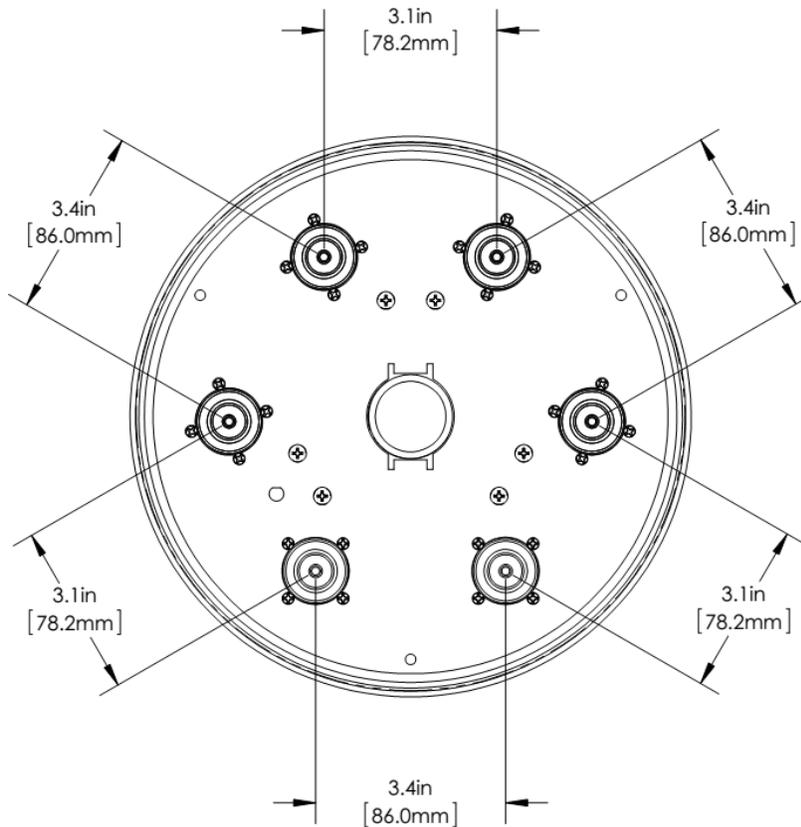
SCA-DR3-65F-EEE-H2

Mechanical

Bottom View



Connector Spacing





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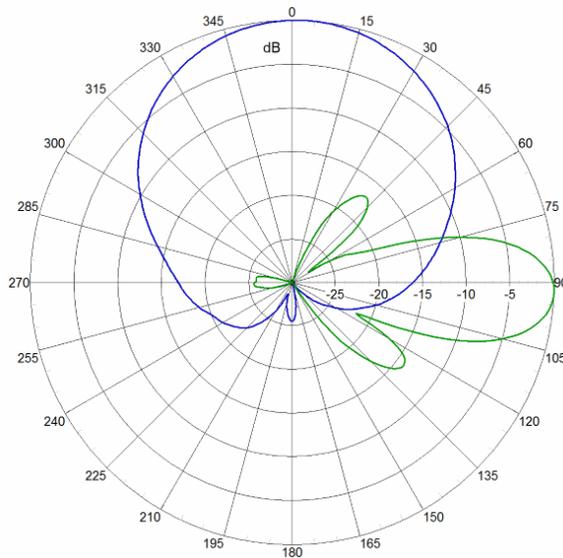
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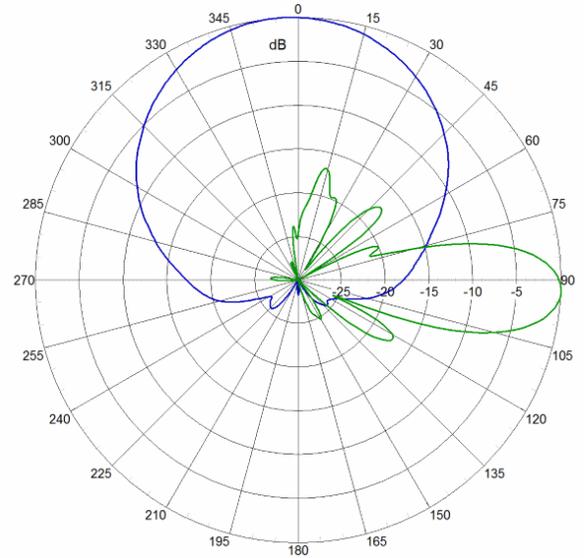
SCA-DR3-65F-EEE-H2

Typical Antenna Patterns

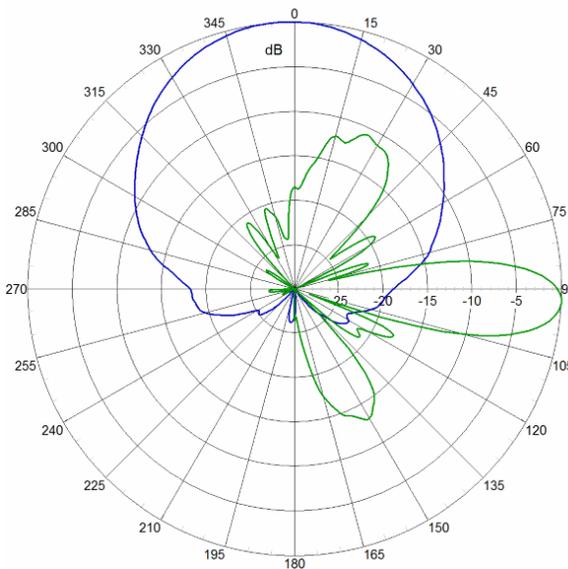
For detailed information on additional antenna patterns, contact customer support at support@cciproducts.com



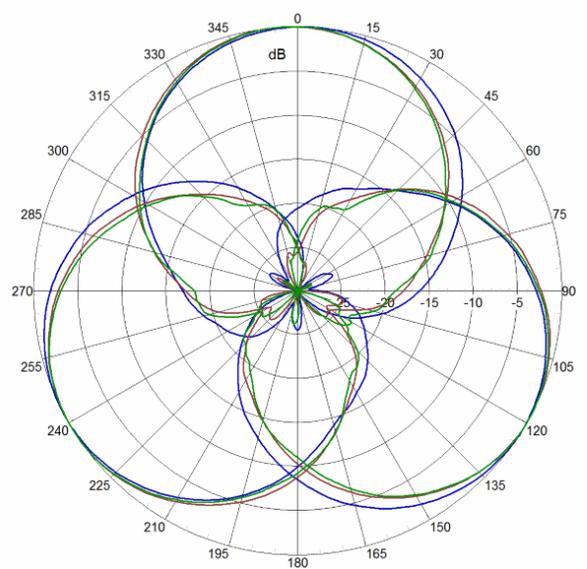
1755 MHz Azimuth Elevation 2°



2110 MHz Azimuth Elevation 2°



2600 MHz Azimuth Elevation 2°



1755 MHz 2110 MHz 2600 MHz



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ORDERING

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Parts & Accessories

SCA-DR-65F-EEE-H2	Two foot (0.5 m) antenna, Tri-Sector, Wideband
SCA-DR-65F-EEE-H2-K	Two foot (0.5 m) antenna, Trisector, Wideband and MBC-02 clamp kit(suitable for pole or wall mounting)
MBC-02	Clamp kit, Pipe range 1 - 2.5 in. or lag bolt to wooden pole or flat surface(lag bolts not supplied)



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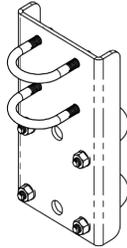
ACCESSORIES

Triple Mount Mast Bracket

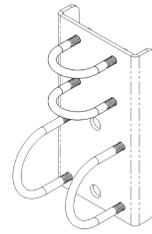
MBC-02

Mechanical

Dimensions (L x W x D)	7.9x4.3x1.1 in. (200x108x28 mm)
Weight	2.4 lbs (1.1 kg)
Fastener Size	5/16 UNC
Installation Torque (ft-lbs)	10



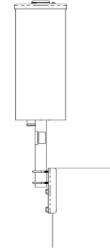
Bracket Vert. Mount View



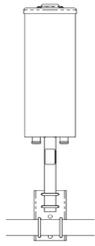
Bracket Hort. Mount View



Vertical Pole Mount



Wooden Pole Mount



Horizontal Pole Mount



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STANDARDS & CERTIFICATIONS

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Standards & Compliance

Environmental IEC 60068-2-1, IEC 60068-2-2, IEC 60068-2-5,
 IEC 60068-2-6, IEC-60068-2-11, IEC 60068-2-14,
 IEC 60068-2-18, IEC 60068-2-27, IEC 60068-2-29,
 IEC 60068-02-30, IEC 60068-2-52, IEC 60068-2-64,
 GR-63-CORE 4.3.1, EN 606529, IP 24

Certifications

Federal Communication Commission (FCC) Part 15 Class B, CE, CSA US, ISO 9001



CCI

Communication Components Inc.

EXTENDING WIRELESS PERFORMANCE